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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,248	10/16/2001	Takashi Hayashihara	1630.1001	2244

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EXAMINER

KIM, CHONG HWA

ART UNIT PAPER NUMBER

3682

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,248

Applicant(s)

HAYASHIHARA ET AL.

Examiner

Chong H. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,9,12 and 14 is/are rejected.
- 7) ☐ Claim(s) 2-4,8,10,11 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The Examiner acknowledges the applicant's Amendment filed Nov 21, 2003 in response to the Office action made on May 22, 2003.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herring, U.S. Patent 3,643,524 in view of Ichiba, U.S. Patent 5,970,817.

Herring shows, in Figs. 1 and 2, a pedal device for a vehicle, comprising;
a depressible portion 34 which is to be operationally depressed by a driver of the vehicle;
an output member 16 pivotably supported by a support shaft 12 provided in a bracket 10 that is fixed to a body of the vehicle, such that the output member is pivoted about the supporting shaft when the depressible portion is operationally depressed, for thereby applying to a motive-power transmitting member 20 an output corresponding to a depression force which is applied to the depressible portion; and

a longitudinal adjustment device 90 to move the depressible portion in a longitudinal direction of the body of the vehicle when the depressible portion is not being operationally depressed;

but fail to show a pedal-ratio varying mechanism.

Ichida shows, in Figs. 1 and 3, a pedal device for a vehicle, comprising a depressible portion 15 which is to be operationally depressed by a driver of the vehicle; an output member 14 pivotably supported by a support shaft 12 provided in a bracket (inherent) that is fixed to a body of the vehicle, such that the output member is pivoted about the supporting shaft when the depressible portion is operationally depressed, for thereby applying to a motive-power transmitting member 20 an output corresponding to a depression force which is applied to the depressible portion; and a pedal-ratio varying mechanism 22-26 which is disposed between the output member and the motive-power transmitting member, and which changes a pedal ratio in relation to a depressing stroke of the pedal device; and wherein the pedal ratio is represented by a ratio of a depressing amount by which the depressible portion is depressed, to a displaced amount by which the motive-power transmitting member is displaced with the depressible portion being depressed by the depressing amount.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the pedal device of Herring by applying the pedal-ratio varying mechanism as taught by Ichida in order to provide the optimal braking operation when sudden braking operation is needed from the normal braking operation, thus providing a safer operation of vehicles, as described in column 1, lines 28-31, by Ichida.

3. Claims 1, 5, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichiba, U.S. Patent 5,970, 817 in view of Herring, U.S. Patent 3,643,524.

Ichida shows, in Figs. 1 and 3, a pedal device for a vehicle, comprising a depressible portion 15 which is to be operationally depressed by a driver of the vehicle; an output member 14 pivotably supported by a support shaft 12 provided in a bracket (inherent) that is fixed to a body of the vehicle, such that the output member is pivoted about the supporting shaft when the depressible portion is operationally depressed, for thereby applying to a motive-power transmitting member 20 an output corresponding to a depression force which is applied to the depressible portion; and a pedal-ratio varying mechanism 22-26 which is disposed between the output member and the motive-power transmitting member, and which changes a pedal ratio in relation to a depressing stroke of the pedal device; and wherein the pedal ratio is represented by a ratio of a depressing amount by which the depressible portion is depressed, to a displaced amount by which the motive-power transmitting member is displaced with the depressible portion being depressed by the depressing amount;

But fails to show a longitudinal adjustment device.

Herring shows, in Figs. 1 and 2, a pedal device for a vehicle, comprising; a depressible portion 34 which is to be operationally depressed by a driver of the vehicle; an output member 16 pivotably supported by a support shaft 12 provided in a bracket 10 that is fixed to a body of the vehicle, such that the output member is pivoted about the supporting shaft when the depressible portion is operationally depressed, for thereby applying to a motive-power transmitting member 20 an output corresponding to a depression force which is applied to the depressible portion; and a longitudinal adjustment device 90 to move the depressible portion in a longitudinal direction of the body of the vehicle when the depressible portion is not being operationally depressed;

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the pedal device of Ichiba by applying the a longitudinal adjustment device as taught by Ichida in order to provide an adjustable control pedals so that the optimal comfort to the operator can be achieved.

4. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janosi, U.S. Patent 3,678,779 in view of Ichiba, U.S. Patent 5,970, 817 and in view of Herring, U.S. Patent 3,643,524.

Janosi shows, in Figs. 1-5, a pedal device for a vehicle, comprising;
a depressible portion 18 which is to be operationally depressed by a driver of the vehicle;
an output member 10 which is pivotably supported by a support shaft 12 provided in a bracket 14 that is fixed to a body of the vehicle, such that the output member is pivoted about the supporting shaft when the depressible portion is operationally depressed, for thereby applying to a motive-power transmitting member 34 an output corresponding to a depression force which is applied to the depressible portion;

a pedal-ratio varying mechanism 24 which is disposed between the output member and the motive-power transmitting member, and which is capable of adjusting a pedal ratio of the pedal device;

wherein the pedal-ratio varying mechanism includes a pivot lever 24 which is supported by an attaching shaft 28 parallel to the supporting shaft and provided in the bracket such that the pivot lever is pivotable about the attaching shaft, the pivot lever being connected to the motive-

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power transmitting member such that the pivot lever is pivotable relative to the motive-power transmitting member;

wherein the pedal ratio is represented by a ratio of a depressing amount by which the depressible portion is depressed, to a displaced amount by which the motive-power transmitting member is displaced with the depressible portion being depressed by the depressing amount;

but fails to show a longitudinal adjustment device and a pedal-ratio varying mechanism having additional connecting link.

As to the matter of the longitudinal adjustment device, Herring shows, in Figs. 1 and 2, a pedal device for a vehicle, comprising; a depressible portion 34 which is to be operationally depressed by a driver of the vehicle; an output member 16 pivotably supported by a support shaft 12 provided in a bracket 10 that is fixed to a body of the vehicle, such that the output member is pivoted about the supporting shaft when the depressible portion is operationally depressed, for thereby applying to a motive-power transmitting member 20 an output corresponding to a depression force which is applied to the depressible portion; and a longitudinal adjustment device 90 to move the depressible portion in a longitudinal direction of the body of the vehicle when the depressible portion is not being operationally depressed;

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the pedal device of Janosi by applying the a longitudinal adjustment device as taught by Ichida in order to provide an adjustable control pedals so that the optimal comfort to the operator can be achieved.

As to the matter of the pedal-ratio varying mechanism having additional connecting link, Ichiba shows, in Fig. 10, a pedal device for a vehicle comprising a depressible portion 15; an

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output member 14; a motive-power transmitting member 18; a pedal-ratio varying mechanism 70 which is disposed between the output member and the motive-power transmitting member, and which is capable of adjusting a pedal ratio of the pedal device; wherein the pedal-ratio varying mechanism includes a pivot lever 74 which is supported by an attaching shaft 72 parallel to the support shaft 12 and provided in a way that the pivot lever is pivotable about the attaching shaft, the pivot lever being connected to the motive-power transmitting member such that the pivot lever is pivotable relative to the motive-power transmitting member about a first connecting shaft (one on the left side of the lever 74) parallel to the attaching shaft; and a connecting link 76 which is connected to the pivot lever such that the connecting link is pivotably relative to the pivot lever about a second connecting shaft 78 parallel to the attaching shaft, the connecting link being connected to the output member such that the connecting link is pivotable relative to the output member about a third connecting shaft (one on the right side of the link 76) parallel to the second connecting shaft; and wherein the depression force applied to the depressible portion is transmitted from the output member to the motive-power transmitting member via the connecting link and the pivot lever.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the pedal-ratio varying mechanism of Janosi with the pedal-ratio varying mechanism employing two connecting links as taught by Ichiba in order to prevent the frictional force adversely affecting “the input/output characteristic (the frictional force is reduced), and a predetermined, stable input/output characteristic can be obtained” as described in column 3, lines 18-21, by Ichiba.

Allowable Subject Matter

5. Claims 2-4, 8, 10, 11, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pedal ratio varying device for vehicles.

Sourbel et al., U.S. Patent 4,005,617

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chong H. Kim whose telephone number is (703) 305-0922. The examiner can normally be reached on Tuesday - Friday; 8:00 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

chk
February 6, 2004


CHONG H. KIM
PRIMARY EXAMINER